

During ten weeks I examined a good portion of Tallulah territory on my hands and knees with a lens but nowhere else did I find a trace of this fern.

Other ferns of interest found are *Cheilanthes tomentosa*, *Asplenium resiliens* and *Asplenium montanum*.

CAMBRIDGE, MASSACHUSETTS.

A UNIQUE CLIMBING PLANT

BY ROLAND M. HARPER

In a letter written to Dr. Small from the field a few months ago, part of which was published in *TORREYA* last October, I mentioned finding *Andromeda phillyreaefolia* [*Pieris phillyreaefolia* (Hook.) DC.], an Ericaceous shrub, climbing the cypress trees (*Taxodium imbricarium*) in Okefinokee Swamp. As this case seems to be without a parallel, at least in the North American flora, some further description of it may be of interest.

I first collected *Pieris phillyreaefolia* on the morning of August 7 (no. 1475), in a sphagnous bog not far from our first camp in the swamp. There it was a shrub two to four feet tall, as usually described, and there was nothing remarkable about its appearance or habitat. A little later in the day our guide pointed out to us a "vine" which he said climbed the cypresses by creeping under their bark. I lost no time in examining a specimen of this peculiar "vine" (no. 1479), and found it to be the same *Pieris* which I had just collected. Its flowering branches projecting from the tree at various distances from the ground gave it the appearance of a parasite, but by pulling some of it away from the tree I discovered its flattened stems concealed between the inner and outer layers of the fibrous bark of the cypress. No connection between the shrub and the living portion of the tree by rootlets or otherwise was observed, and it is not likely that the *Pieris* derives any advantage except mechanical support from this arrangement. I did not take time to trace the creeping stem down to the ground, nor did I observe where it first penetrated the bark of the tree. The concealed part of the stem

is covered with a soft pale reddish bark, and bears small scattered appressed scales along its two edges. These stems often ascend to a height of thirty or forty feet, and as the leafy branches are usually several feet apart and project only a foot or two they are not conspicuous.

No record of this peculiar climbing habit of *Picris phillyreaefolia* seems to have yet found its way into botanical literature, but it has not entirely escaped the attention of botanists, for there is in the Torrey Herbarium a specimen collected in Florida by Dr. Chapman in 1840, accompanied by the following note: "This plant in its habit is quite singular. I find it growing on live cypress trees in a pond near this place [Apalachicola?] twenty feet from the ground! as if it was a parasite. I have not made an examination but I suspect that the stems creep under the bark from the ground." For some reason Dr. Chapman failed to mention this interesting observation in his Flora, which was published twenty years later.

A few weeks after leaving Okefinokee Swamp I found the same *Picris* climbing the same species of *Taxodium* at several points in Lowndes and Brooks Counties, over fifty miles west of the swamp, and collected some more specimens of it (no. 1602) in an extensive swamp between Clyattville and Valdosta, in the former county, on September 2. Before this time it had never been reported from Georgia, but only from West Florida, and a single station in Mobile County, Alabama, where Dr. Mohr found it as a "shrub 5 to 8 inches high."

This association of *Picris phillyreaefolia* with *Taxodium imbricarium* and no other tree is rather remarkable, as most of our climbers, epiphytes and even many parasites seem to have no particular preference in the matter of hosts. But in this case there is no other tree having a similar habitat which has a bark composed of such long parallel and easily separable fibers.

Picris phillyreaefolia is described as having a stem alternately leafy and bracted. This character may be an inheritance from a time when its climbing habit was more universal than now, and the bracted portion of the erect stems probably corresponds to the subcortical portion of the climbing stems.